

# Introduction to Utility Finance

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## Session Objective

- Understand some of the public enterprise financial resources available at the School of Government
- Peak your interest in public enterprise financial management by covering some of the basics...

## Topics

- Public Enterprise Overview
- Monitoring Fiscal Health
- Rates and charges
- Capital planning and funding
- Market trends
- Questions

**WHAT IS A UTILITY?**

## Terminology

- “Utility” vs. “Public Enterprise”
- “Public Enterprise” vs. “Commercial Service”

## What is a public enterprise?

- A financial management philosophy
- An accounting approach
- A legally defined government service approach

## **What services does your local government provide?**

### **§ 160A-311. Public enterprise defined.**

- (1) Electric power generation, transmission, and distribution systems.
- (2) Water supply and distribution systems.
- (3) Wastewater collection, treatment, and disposal systems of all types, including septic tank systems or other on-site collection or disposal facilities or systems.
- (4) Gas production
- (5) Public transportation systems.
- (6) Solid waste collection and disposal systems and facilities.
- (7) Cable television systems.
- (8) Off-street parking facilities and systems.
- (9) Airports.
- (10) Stormwater management programs designed to protect water quality by controlling the level of pollutants in, and the quantity and flow of, stormwater and structural and natural stormwater and drainage systems of all types.

## § 160A-314. Authority to fix and enforce rates.

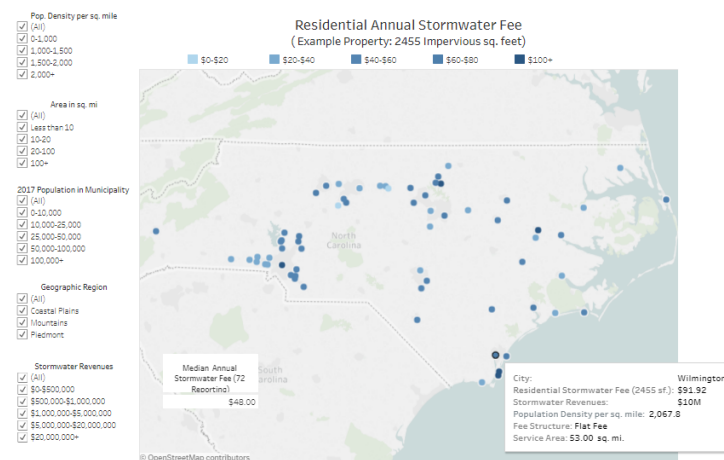
- (a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

## Stormwater Utilities

[Click to exit tool](#)

[Intro](#) [Residential](#) [Non-Residential](#) [Customized Analysis](#)

### 2017 Residential Stormwater Rates and Revenues: Preliminary Analysis



<https://efc.sog.unc.edu/reslib/item/2017-north-carolina-stormwater-rates-dashboard#>

# Electric Utilities

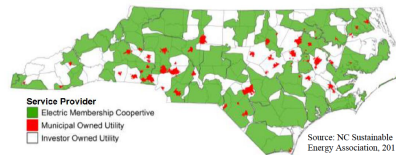


Figure 1- Map of North Carolina Electric Service Providers <sup>3</sup>

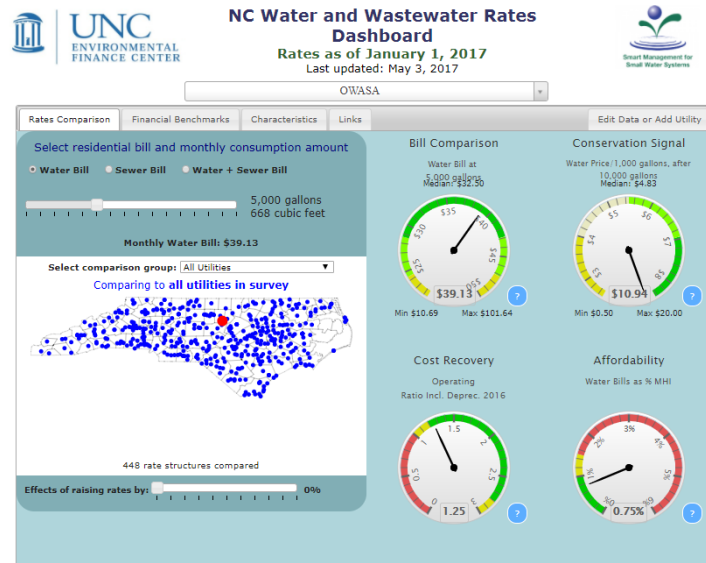
<sup>3</sup> Source: "2011 North Carolina Clean Energy Data Book," NC Sustainable Energy Association, June 2011.

Table 1- Residential electricity sales summary for providers in North Carolina

Institutional Structure	Total Number of Customers*	Total Sales (megawatt hours)	Total Revenue (thousand dollars)	Average Retail Price (\$/kWh)
Municipal	491,576	6,024,377	\$691,934	\$0.12040
Cooperative	916,884	12,598,933	\$1,439,058	\$0.11982
Investor-owned	2,767,369	37,687,816	\$3,496,161	\$0.09573
<b>Totals</b>	<b>4,175,829</b>	<b>56,311,126</b>	<b>\$5,627,153</b>	<b>\$0.11953</b>

\* Includes all electricity accounts

Source: EIA Residential Energy Consumption Survey (2009)



<https://efc.sog.unc.edu/reslib/item/north-carolina-water-and-wastewater-rates-dashboard#>

### **Solid Waste Fees vs. Other Utility Fees for Municipalities that have Storm water Utilities**

- Total solid waste fees: \$146,039,610
- Total property tax: \$1,730,008,002
- Total stormwater fees: \$182,313,937  
(Total reported for all municipalities = \$224,792,896)
- Total water/wastewater fees: \$1,380,988,150  
(Total reported for all municipalities = \$2,019,495,974)

*Source: Analysis prepared by the EFC using self reported information submitted to the Local Government Commission*

**HOW DO YOU KNOW IF YOUR PUBLIC  
ENTERPRISE IS HAPPY??**

**[HTTP://YOUTU.BE/A5P6MINGHSA?  
LIST=UUDWRPSHGFQM7OWSJHYZQOD  
Q](http://youtu.be/A5P6MINGHSA?LIST=UUDWRPSHGFQM7OWSJHYZQODQ)**

## Rates Dashboards

- Interactive tool to compare rates (bills) among all utilities, or utilities with similar characteristics:
  - System size (number of accounts or revenues)
  - Technology (water source type or river basin)
  - Location (regional council, 50 miles distance)
- Available online at <http://www.efc.sog.unc.edu>
- <http://www.efc.sog.unc.edu/reslib/item/north-carolina-water-and-wastewater-rates-dashboard#>

## Overstepping Fee Authority

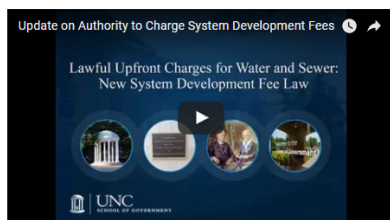
### EVENT

#### WEBINAR | AUTHORITY TO CHARGE WATER SYSTEM DEVELOPMENT FEES/IMPACT FEES

##### Webinar

Thursday, August 17, 2017 10:30 AM

UNC School of Government faculty Kara Millonzi and EFC Director Jeff Hughes presented a webinar to address the repercussions of recent legislation (NC House Bill 436 Session Law 2017-138) on the authority of local government water and wastewater utilities in North Carolina to set System Development Fees (a.k.a. impact fees). The law changes the authority that municipalities, counties, and special units of local government (Authorities, Metropolitan Districts, Sanitary Districts, etc.) in assessing and implementing System Development Fees. The law specifies what is eligible, how the fees can be assessed, and how they are to be implemented. In some cases, there are some significant changes to how NC utilities have been assessing and implementing impact fees/system development fees in the past. Please watch a recording of the webinar below and download the latest version of the PowerPoint slides (which have been updated from the time of the webinar) below. Also, you may wish to read blog posts from Kara and Jeff on this topic.



<https://efc.sog.unc.edu/event/webinar-authority-charge-water-system-development-feesimpact-fees>



## **You are Not Alone NC Rate Setting Resources**

- Guide to Billing..., Kara Millonzi Rates Book
- EFC Web Resources (data, guidelines, dashboard)
- LGC
- Rate Setting Guide
- AWWA M1 Guide
- NC Rural Water Association
- SERCAP
- Consultants
- NCLM/EFC Practices Survey

## **Planning for the Big Stuff How do you do it?**

## Financial Planning

### PROJECT

#### CAPITAL PLANNING RESOURCES FOR WATER AND WASTEWATER UTILITIES



This project, part of the NC Water System Capacity Development Support project funded by the Public Water Supply Section of NC Department of Environment and Natural Resources, brings together many resources focused on capital planning for drinking water and wastewater utilities. Capital planning often leads to the creation of a Capital Improvement Plan (CIP) and/or an Asset Management Plan.

#### Blog Post on "Using an Index to Help Project Capital Costs Into the Future"

Read a short blog post on selecting an appropriate inflation factor for capital costs, including links to websites that provide data on current estimates of Construction Cost Index (CCI) and Consumer Price Index (CPI).

#### A tool for utilities: "Plan to Pay: Scenarios to Fund your C.I.P."

The EFC developed an Excel-based tool that allows water utility managers and technical assistance providers to relatively quickly create a simple Capital Improvement Plan and assess strategies to fully fund capital projects for the next 20 years through a combination of pay-as-you-go and debt service. The user inputs cost and timeline data for all capital projects and the tool projects the utility's fund balance (revenues, expenses and reserves), and projects estimated rate increases for the next 20 years to fund the capital projects and O&M expenses. Data entry requirements are minimal, and the tool is intended for small and medium sized water and wastewater systems (in any State).

#### Reference Guide on What to Include in Your Capital Plan

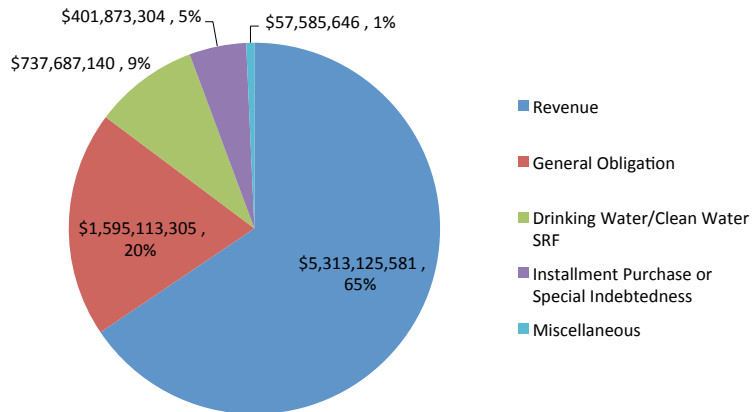
The EFC developed an Excel-based tool in September 2015 titled "What to Include in Your Capital Plan: A Reference Guide for NC Water and Wastewater Utilities." This reference guide lists the requirements and recommendations made by many sources that influence what utilities in North Carolina include in their capital plans. Listing all of these sources in one document provides a reference that allows a utility to quickly compare and assess what they may want to include in their capital plan. Although the guide was written specifically for NC utilities, utilities in other states may also find it useful. Please note that some references and information may no longer be valid since requirements and recommendations change over time.

<https://efc.sog.unc.edu/project/capital-planning-resources-water-and-wastewater-utilities>

## Where did funds for your last major public enterprise capital project come from?

1. Bond/Commercial Loan
2. USDA
3. CDBG
4. SRF
5. Other DWI
6. Savings
7. Other?

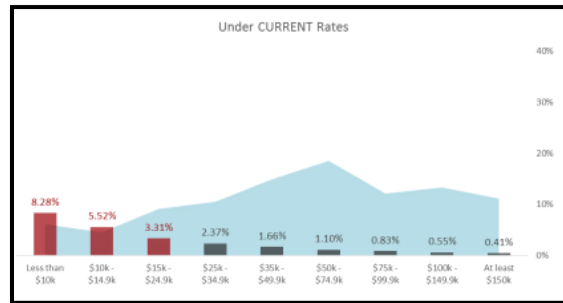
## **\$8,105,384,976 in Outstanding W/S Debt (including State) as of 2013**



Data analyzed by the University of North Carolina Environmental Finance Center.  
Data Source: North Carolina Department of State Treasurer State and Local  
Government Finance Division

## **A FEW MARKET TRENDS**

## Concern for Affordability



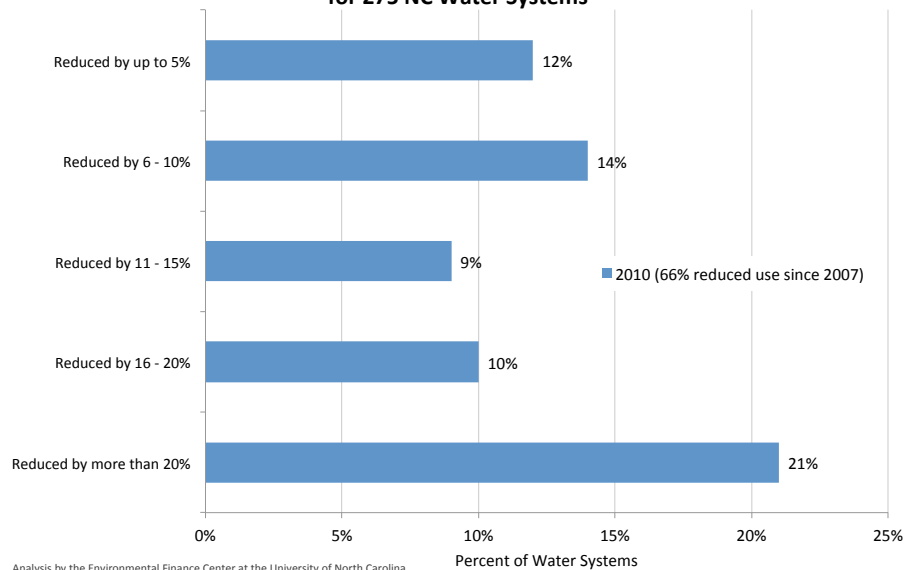
**City Creates Assistance Program for Water and Sewer Utility Customers**

The City of Raleigh has established a new pilot program to help economically distressed water and sewer utility customers manage their utility bills. The Utility Customer Assistance Program (UCAP) will be administered in partnership with the Wake County Human Services Department, which will provide eligibility screening services for the program.

Our customers can call 919-996-3245 to speak with a billing specialist to learn more.



### Reductions in Average Household Use in 2010 from 2007 Levels for 275 NC Water Systems



# Partnerships and Consolidations

